

Claims

Claim 1 (previously amended): A musical tone generation apparatus incorporating a music synthesizer and an operator, comprising:

a readout device for reading first function setting information from an extension board, wherein the extension board comprises a first storage device for storing pattern information representing a prescribed sound pattern, a second storage device for storing the first function setting information, and a reproducing device for expanding performance information supplied thereto with respect to a prescribed music element based on the first function setting information and for reproducing musical tone signals of the prescribed sound pattern in accordance with the pattern information, and wherein the first function setting information is for setting up reproduction of the musical tone signals of the prescribed tone generation pattern in the reproducing device;

a setting device for initiating the setup for the reproduction of the musical tone signals of the prescribed sound pattern in the reproducing device based on the first function setting information in response to a manual operation applied to the operator; and

a sending device for sending second function setting information, which is provided from the setting device initiating the setup for the reproduction of the musical tone signals of the prescribed sound pattern in the reproducing device, to the extension board.

Claim 2 (previously amended): A musical tone generation apparatus according to claim 1, wherein the prescribed music element is a tone color.

Claim 3 (previously amended): A musical tone generation apparatus according to claim 1, wherein the prescribed sound pattern is an arpeggio pattern.

Claim 4 (previously amended): A musical tone generation apparatus according to claim 1 further comprising an I/O interface for interconnection with the extension board, so that the readout device reads the first function setting information from the extension board by way of the I/O interface, and the sending device sends the second function setting information to the extension board by way of the I/O interface.

Claim 5 (previously amended): A musical tone generation apparatus according to claim 1, wherein the operator is operated in a process for setting the prescribed music element being expanded.

Claim 6 (previously amended): A musical tone generation apparatus according to claim 2 wherein the extension board provides a plurality of expanded tone colors, each of which is selectively used for reproduction of musical tone signals of the prescribed sound pattern.

Claim 7 (previously amended): A musical tone generation apparatus according to claim 3 wherein the extension board provides a plurality of expanded tone colors, each of which is selectively used for reproduction of musical tone signals of the arpeggio pattern.

Claim 8 (previously amended): A musical tone generation apparatus according to claim 1 wherein the readout device automatically reads the first function setting information from the extension board in a power-on event.

Claim 9 (previously amended): An extension board installed in a tone generator for generating musical tone signals in response to performance information, comprising:

a storage device for storing pattern information representing a prescribed sound pattern;
and

a reproducing device for reproducing musical tone signals of the prescribed sound pattern in accordance with the pattern information stored in the storage device in response to the performance information supplied from the tone generator, the reproduced musical tone signals having an extended music element, wherein the tone generator is independently incapable of generating musical tone signals having the extended music element.

Claim 10 (previously amended): An extension board according to claim 9, wherein the extended music element is a tone color and the reproduced musical tone signals have a specific tone color, which differs from an original tone color pre-installed in the tone generator.

Claim 11 (previously amended): An extension board according to claim 9, wherein the prescribed sound pattern is an arpeggio pattern.

Claim 12 (previously amended): An extension board according to claim 10, wherein the reproducing device secures a plurality of extended tone colors, each of which is selectively used for reproduction of musical tone signals of the prescribed sound pattern.

Claim 13 (previously amended): An extension board according to claim 11, wherein the reproducing device secures a plurality of extended tone colors, each of which is selectively used for reproduction of musical tone signals of the arpeggio pattern.

Claim 14 (previously amended): An extension board according to claim 9, wherein the extended music element is an effect, so that the reproducing device sequentially reproduces musical tone signals having the extended effect at timings being shifted from their original timings.

Claim 15 (previously amended): A musical tone generation system comprising:
a musical tone generation device incorporating a first music synthesizer that synthesizes first musical tones with a prescribed tone color in response to key-operation information; and
a tone color extension board installed in the musical tone generation device to provide expansion of the prescribed tone color,
wherein said tone color extension board comprises
a sequencer for reproducing sound patterns in response to key-operation information that is supplied thereto from the musical tone generation device, and
a second music synthesizer that synthesizes second musical tones with expanded tone colors in accordance with the sound patterns respectively, so that the musical tone generation device produces mixture of the first musical tones and the second musical tones.

Claim 16 (previously amended): A musical tone generation system according to claim 15 wherein the tone color extension board provides a plurality of the expanded tone colors, which differ from original tone colors pre-installed in the musical tone generation device and each of which is selectively used for reproduction of the sound patterns respectively.

Claim 17 (previously amended): A musical tone generation system according to claim 15 further comprising an effector for imparting effects to the mixture of the first and second musical tones.

Claim 18 (previously amended): A musical tone generation system comprising:
a musical tone generation device incorporating a first music synthesizer that synthesizes first musical tones with a prescribed tone color in response to key-operation information; and
a tone color extension board installed in the musical tone generation device to provide expansion of the prescribed tone color,
wherein said tone color extension board comprises
a sequencer for reproducing arpeggio patterns in response to key-operation information that is supplied thereto from the musical tone generation device, and
a second music synthesizer for sequentially generating second musical tones with expanded tone colors in accordance with the arpeggio patterns respectively, so that the musical tone generation device produces mixture of the first musical tones and the second musical tones.

Claim 19 (previously amended): A musical tone generation system according to claim 18 wherein the tone color extension board provides a plurality of the expanded tone colors, which differ from original tone colors pre-installed in the musical tone generation device and each of which is selectively used for reproduction of the arpeggio patterns respectively.

Claim 20 (previously amended): A musical tone generation system according to claim 18 further comprising an effector for imparting effects to the mixture of the first and second musical tones.

Claim 21 (previously amended): A musical tone generation method comprising the steps of:

reading first function setting information from an extension board, wherein the extension board comprises a first storage device for storing pattern information representing a prescribed sound pattern, a second storage device for storing the first function setting information, and a reproducing device for expanding performance information supplied thereto with respect to a prescribed music element based on the first function setting information and for reproducing musical tone signals of the prescribed sound pattern in accordance with the pattern information, and wherein the first function setting information is for setting up reproduction of the musical tone signals of the prescribed tone generation pattern in the reproducing device;

initiating the setup for the reproduction of the musical tone signals of the prescribed sound pattern in the reproducing device based on the first function setting information in response to a manual operation applied to an operator; and

sending second function setting information, which is provided from the step of initiating the setup for the reproduction of the musical tone signals of the prescribed sound pattern in the reproducing device, to the extension board.

Claim 22 (currently amended): A function expanding method performed by an extension board comprising the steps of:

storing pattern information representing a prescribed sound pattern in ~~an~~ the extension board;

supplying performance information for generating musical tone signals from a tone generator to the extension board; and

reproducing musical tone signals of the prescribed sound pattern in accordance with the pattern information stored in said step of storing in response to the performance information supplied from said step of supplying, the reproduced musical tone signals having an extended music element, wherein the tone generator is independently incapable of generating musical tone signals having the extended music element.

Claim 23 (previously amended): A musical tone generation method applicable to a musical tone generation device installing a tone color extension board to provide expansion of a prescribed tone color, said musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize first musical tones with the prescribed tone color in response to key-operation information;

reproducing sound patterns in response to key-operation information that is supplied thereto from the musical tone generation device;

activating a second music synthesizer of the tone color extension board to synthesize second musical tones with expanded tone colors in accordance with the sound patterns respectively; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

Claim 24 (previously amended): A musical tone generation method applicable to a musical tone generation device installing a tone color extension board to provide expansion of a prescribed tone color, said musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize first musical tones with the prescribed tone color in response to key-operation information;

reproducing arpeggio patterns in response to key-operation information on the tone color extension board;

activating a second music synthesizer of the tone color extension board to sequentially generate second musical tones with expanded tone colors in accordance with the arpeggio patterns respectively; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

Claim 25 (previously amended): A machine-readable media storing programs and data that cause a musical tone generation device installing an extension board to perform a musical tone generation method comprising the steps of:

reading first function setting information from the extension board, wherein the extension board comprises a first storage device for storing pattern information representing a prescribed sound pattern, a second storage device for storing the first function setting information, and a reproducing device for expanding performance information supplied thereto with respect to a prescribed music element based on the first function setting information and for reproducing musical tone signals of the prescribed sound pattern in accordance with the pattern information, and wherein the first function setting information is for setting up reproduction of the musical tone signals of the prescribed tone generation pattern in the reproducing device;

initiating the setup for the reproduction of the musical tone signals of the prescribed sound pattern in the reproducing device based on the first function setting information in response to a manual operation applied to an operator; and

sending second function setting information, which is provided from the step of initiating the setup for the reproduction of the musical tone signals of the prescribed sound pattern in the reproducing device, to the extension board.

Claim 26 (previously amended): A machine-readable media storing programs and data that cause an extension board installed in a tone generator to perform a function expanding method comprising the steps of:

storing pattern information representing a prescribed sound pattern in an extension board;
supplying performance information for generating musical tone signals from the tone generator to the extension board; and

reproducing musical tone signals of the prescribed sound pattern in accordance with the pattern information stored in said step of storing in response to the performance information supplied from said step of supplying, the reproduced musical tone signals having an extended music element, wherein the tone generator is independently incapable of generating musical tone signals having the extended music element.

Claim 27 (previously amended): A machine-readable media storing programs and data that cause a musical tone generation device installing a tone color extension board to perform a musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize first musical tones with a prescribed tone color in response to key-operation information;

reproducing sound patterns in response to key-operation information that is supplied thereto from the musical tone generation device;

activating a second music synthesizer of the tone color extension board to synthesize second musical tones with expanded tone colors in accordance with the sound pattern respectively; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.

Claim 28 (previously amended): A machine-readable media storing programs and data that cause a musical tone generation device installing a tone color extension board to perform a musical tone generation method comprising the steps of:

activating a first music synthesizer of the musical tone generation device to synthesize first musical tones with a prescribed tone color in response to key-operation information;

reproducing arpeggio patterns in response to key-operation information on the tone color extension board;

activating a second music synthesizer of the tone color extension board to sequentially generate second musical tones with expanded tone colors in accordance with the arpeggio patterns respectively; and

mixing the first musical tones together with the second musical tones to produce mixed musical tones.